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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,116	09/18/2000	Wilhelm F. Maier	STUDIEN 272-	7894

7590

02/25/2002

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EXAMINER

FRIEND, TOMAS H F

ART UNIT

PAPER NUMBER

1627

DATE MAILED: 02/25/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,116

Applicant(s)

MAIER ET AL.

Examiner

Tomas Friend

Art Unit

1627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-15 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Detailed Action

Status of the Application

Receipt is acknowledged of a request for corrected filing receipt on 16 January 2002 (Paper No. 5).

Status of the Claims

Claims 1-15 are pending in the present application and examined on their merits.

Objections to the Claims

1. Claim 7 is objected to for depending from a rejected claim.

Claims Rejections – 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4, 6, 8, 13, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The phrase “*which image corresponds to a subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes*” in claim 1 does not make clear what the metes and bounds are of an image that “*corresponds to a subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes*” if the image is not “*a subtraction of the infrared emission recorded prior to the beginning of the processes from*

the infrared emission recorded during the course of the processes.” Clarification is requested as to the metes and bounds of the term “*corresponds to.*”

B. Claim 4 depends from claim 2 and recites “*said catalyst libraries*” while claim 2 recites “*catalyst library.*” Clarification is requested with regard to whether one or more libraries are included in the claims.

C. In claim 4, the relationship between aqueous or alcoholic precursor solutions of silicon and catalyst components in the form of metal oxides and/or mixed metal oxides is not clear. Are metal oxides formed from solutions of silicon? Clarification is requested because silicon is not a metal.

D. In claims 6, 8, and 15, the term “*low infrared reflectivity*” does not provide one of ordinary skill in the art a means for determining the metes and bounds of the material from which library plate is made. Without providing a value for infrared reflectivity that defines “*low infrared reflectivity,*” for example one of ordinary skill in the art would not know which materials might infringe upon the claim.

E. Claim 13 recites “*the catalysts are...recorded by the ...infrared camera...*” From claim 1, it appears that the camera is recording heat changes rather than catalysts. Clarification with regard to what the infrared camera is recording is requested.

Claims Rejections – 35 U.S.C. 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 and 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Wilson, III U.S. Patent 6,063,633 May 2000.

The Wilson, III reference teaches the thermographic measurement of catalyzed reactions (i.e. comparative determination of heat changes caused by a chemical process) in column 1, lines 44-65. Column 3, lines 4-6 teaches that *"Thermography, as by an infrared camera recording the temperature at a number of catalyst sites simultaneously is particularly preferred."* Column 4, lines 51-55 teaches that localized temperature increases (or decreases) are measured.

The Wilson, III reference does not explicitly teach recording a difference image that *"corresponds to a subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes."*

Simultaneously measuring the temperature changes at a number of catalytic sites using an infrared camera anticipates recording a *"difference image"* which *"corresponds to a subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes"* because the simultaneous recording produces an image. That image, which must inherently include information about **changes** in temperature **must** therefore *"correspond to"* a *"subtraction of the infrared emission recorded prior to the beginning of the processes from the infrared emission recorded during the course of the processes."* See column 6, lines 8-12, which teaches the storage of digital maps used to normalize infrared energy flu and improve accuracy of local temperature measurements. See also claims 32 and 33.

Alternatively, an image of the sites in which the temperatures before the processes have been subtracted from the temperatures during and/or after the processes. One of ordinary skill in the art would have recognized that simultaneously measuring the temperature changes at a

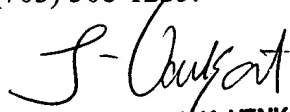
number of catalytic sites "*corresponds to*" an image of the sites in which the temperatures before the processes have been subtracted from the temperatures during and/or after the processes.


Column 2, lines 14-22 teaches that catalyst libraries may be placed onto supports (library plates). Column 2, lines 1-46 teaches that catalysts may be metals that are deposited as oxides that result from decomposition of organic or inorganic compounds. Catalysts may be deposited using slurries or by precipitating solutions (i.e. aqueous or alcoholic solutions). Example 12 teaches the use of metal oxalate (carboxylate) salt solutions to deposit catalysts into a microtiter dish by drying. Zeolites as catalysts is taught in column 2, lines 19-22. Metallocene catalysts arrays are taught in column 11, lines 21-23. The use of clays and carbon as support materials (i.e. library plates having low infrared reflectivity) is taught in column 2, lines 14-15. A Teflon block monolith (i.e. library plate coated with a non-wetting material) is taught in column 8, lines 23. The use of wavelength-specific filters and infrared-transparent windows are taught, for example in column 5, Example 3.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomas Friend at telephone number (703) 308-4548. The examiner can normally be reached on Monday, Tuesday, Friday, and Saturday 8:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat can be reached on (703) 308-2439. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-2742.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at (703) 308-1235.


DR. JYOTHSNA VENKAT PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

Tomas Friend, Ph.D. 

20 February 2002